

STATEMENT OF THE CLAIMS

1. (currently amended) A plug for occluding a blood vessel having a severed end and a lumen extending therefrom, the plug comprising:

a first tapered body portion[[,]] having a diameter smaller than that of the lumen of the blood vessel;

a second disc-shaped ~~hollow resilient~~ body portion depending from attached to the first ~~tapered~~ body portion, the diameter of the second ~~disc-shaped~~ body portion being larger than the diameter of the first ~~tapered~~ body portion and being larger than the diameter of the lumen of the blood vessel, wherein when the first and second body portions are inserted axially into the lumen of the blood vessel adjacent its severed end the wall of the lumen of the blood vessel expands and grasps the second body portion thereof and said plug thereby occludes blood flow through the lumen and out the severed end of the blood vessel; and

means operably coupled to attached to the inner part of the second ~~disc-shaped~~ body portion, the means permitting a user to effect a change in the diameter of the second ~~disc-shaped hollow~~ body portion to enable the removal of the plug from the severed end of the occluded blood vessel.

2. (currently amended) The occluding plug as claimed in claim 1, wherein: further including

the means causing the change in diameter of the second body portion includes a third cylindrical body portion depending from the second attached to the disc-shaped

~~body portion, said third cylindrical body providing access to the means for causing the change in diameter of the second disc shaped hollow body, and a filament attached to the third body portion.~~

3. (currently amended) The occluding plug as claimed in claim 1 2, wherein:

~~the third body portion is cylindrical means causing the change in diameter of the disc shaped body comprise a filament attached to the inner circumference of the disc shaped body.~~

4. (currently amended) The occluding plug as claimed in claim 3 2, wherein:

~~further including a third cylindrical body attached to the disc shaped body, said third cylindrical body portion has at least one including an aperture for securing the filament thereto to provide access to the means for causing the change in diameter of the second disc shaped hollow body.~~

5. (currently amended) The occluding plug as claimed in claim 1, wherein:

~~said first body portion has further including a rounded nosepiece attached to said first body.~~

6. (currently amended) The occluding plug as claimed in claim 1, wherein:

the plug is constructed from the group consisting of silicone, polyurethane and polyisobutylene-based polymers.

7. (currently amended) The occluding plug as claimed in claim 1, further including:

a longitudinal pilot hole defined by said plug and capable of ~~for~~ receiving a insertion device.

8. (currently amended) The occluding plug as claimed in claim 7, further including:

an insertion device capable of ~~for~~ inserting the occluding plug axially into the lumen of the blood vessel adjacent its severed end, the insertion device having a needle that is operably disposed within the pilot hole of the occluding plug, ~~a tubular needle-guard surrounding the needle, the tubular needle guard fitting into the pilot hole of the plug, a spring connected to the needle to propel the needle outwards and to thereby urge the plug into the vessel, and a lever operable to compress and decompress the spring.~~

9. (currently amended) The occluding plug as claimed in claim ~~4~~ 7, wherein:

said ~~first body is tapered~~ pilot hole is formed in said first, second and third body portions.

10. (currently amended) A kit ~~A plug for occluding a blood vessel~~ comprising:

the occluding plug of claim 7; and
~~a first body, having a largest diameter smaller than that of the blood vessel;~~
~~a second disc shaped hollow resilient second body attached to the first tapered body, the diameter of the second disc shaped body being larger than the diameter of the first tapered body and the diameter of the blood vessel so that upon insertion into a blood~~

~~vessel the disc shaped hollow resilient body will distend the blood vessel to hold the plug in place;~~

~~means attached to the inner part of the second disc shaped body, the means permitting a user to effect a change in the diameter of the second disc shaped hollow body to, enable the removal of the plug from the occluded blood vessel; and a third body portion attached to the disc shaped body, said third body providing access to the means for causing the change in diameter of the second disc shaped hollow body~~

an insertion device capable of inserting the occluding plug axially into the lumen of the blood vessel adjacent its severed end, the insertion device having a needle that is operably disposed within the pilot hole of the occluding plug.

11. (currently amended) The kit occluding plug as claimed in claim 10, wherein:

the means causing the change in diameter of the second disc shaped body portion of the occluding plug ~~comprise~~ includes a filament attached to the third body portion inner circumference of the disc shaped body, the filament causing the second body portion disc shaped body to collapse when pulled by a user to permit removal of the occluding plug from the severed end of the blood vessel.

12. (currently amended) The kit occluding plug as claimed in claim ~~10~~ 11, wherein:

said third body portion includes at least one aperture through which the filament extends.

13. (currently amended) The kit occluding plug as claimed in claim 10, wherein:

the first body portion of the occluding plug has further including a rounded nosepiece ~~attached to said first body.~~

14. (currently amended) The kit occluding plug as claimed in claim 10, wherein:
the occluding plug is constructed from the group consisting of silicone, polyurethane and polyisobutylene-based polymers.

15. (currently amended) The kit occluding plug as claimed in claim ~~1~~ 10, wherein:
said first body portion of said occluding plug is conical.

16. (currently amended) The kit occluding plug as claimed in claim 10, wherein:
said occluding plug includes a third body is cylindrical portion depending from
said second body portion.

17. (currently amend) The kit occluding plug as claimed in claim ~~10~~ 16, wherein: ~~further~~
~~including a longitudinal pilot hole for receiving a insertion device~~
said third body portion of said occluding plug is cylindrical.

18. (currently amended) The kit occluding plug as claimed in claim ~~17~~ further including
10, wherein:
said ~~an insertion device for inserting the plug into the blood vessel, the insertion~~
device includes at least one of having a needle,

i) a tubular needle guard surrounding the needle, the tubular needle guard fitting into the pilot hole of the occluding plug,

ii) a spring connected to the needle to propel the needle outwards and to thereby urge the occluding plug into the lumen of the blood vessel adjacent its severed end, and

iii) a lever operable to propel the needle outwards and to thereby urge the occluding plug into the lumen of the blood vessel adjacent its severed end ~~compress and decompress the spring~~.

19. (new) The occluding plug as claimed in claim 17, wherein:

said pilot hole is formed in said first, second and third body portions.

20. (new) The kit according to claim 8, wherein:

the insertion device includes at least one of

i) a tubular needle guard surrounding the needle, the tubular needle guard fitting into the pilot hole of the occluding plug,

ii) a spring connected to the needle to propel the needle outwards and to thereby urge the occluding plug into the lumen of the blood vessel adjacent its severed end, and

iii) a lever operable to propel the needle outwards to thereby urge the occluding plug into the lumen of the blood vessel adjacent its severed end.